

## Sequence Listing

## SEQ ID NO. 1

5 PSF Long Form PSF-A

P23246

707 aa linear

10 Splicing factor, proline-and glutamine-rich (Polypyrimidine tract-binding protein-associated splicing factor) (PTB-associated splicing factor) (PSF) (DNA-binding p52/p100 complex, 100 kDa subunit).

NP\_005057

15 splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated) [Homo sapiens].

CAA50283

707 aa linear

20 PTB-associated splicing factor [Homo sapiens].

1 msrdfrfrsrg gggggfhhrrg ggggrggldh frspppgmg1 nqnrgpmgpg pgqsgpkppi  
 61 ppppphqqqq qpppqppppq qppphqppph ppphqqqqpp pppqdsskp vaggpgpapg  
 121 vgsappasss appatppts gpgsgpgpt ptpppavtsa ppgappptpp ssgvpttppq  
 181 agggppppaa vpgpgpgpkq gpgpgpgkkg kmpggpkpgg gpglstpggh pkpphrggge  
 25 241 prggrqhphp yhqqhghqpp gpgpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
 301 vgnlpadite defkrlfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
 361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
 421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpm qkeretpprf  
 481 aqhtgfeyey sqrwksldem ekqgrequek nmkdakdkle semedayeh qanllrqdlm  
 30 541 rrqeelrrme elhnqemqkr kemqlrquee rrrreeemmi rgreemegmr rgreesysrm  
 601 gymdprerdm rmggggamnm gdpysgggk fpplgggggi gyeangpvpp atmsgsmmgs  
 661 dmrterfggg gagpvgggpg rgmgpgtpag ygrgreeyeg pnkkprf

35 SEQ ID NO. 2

AAH51192

707 aa linear

40 Splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated) [Homo sapiens].

1 msrdfrfrsrg gggggfhhrrg ggggrggldh frspppgmg1 nqnrgpmgpg pgqsgpkppi  
 61 ppppphqqqq qpppqppppq qppphqppph ppphqqqqpp pppqdsskp vaggpgpapg  
 121 vgstppasss appatppts gpgsgpgpt ptpppavtsa ppgappptpp ssgvpttppq  
 45 181 agggppppaa vpgpgpgpkq gpgpgpgkkg kmpggpkpgg gpglstpggh pkpprrggge  
 241 prggrqhphp yhqqhghqpp gpgpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
 301 vgnlpadite defkrlfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
 361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
 421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpm qkeretptrf  
 50 481 aqhtgfeyey sqrwksldem ekqgrequek nmkdakdkle semedayeh qanllrqdlm  
 541 rrqeelrrme elhnqemqkr kemqlrquee rrrreeemmi rgreemegmr rgreesysrm  
 601 gymdprerdm rmggggamnm gdpysgggk fpplgggggi gyeangpvpp atmsgsmmgs  
 661 dmrterfggg gagpvgggpg rgmgpgtpag ygrgreeyeg pnkkprf

55

## SEQ ID NO. 3

Isoform short - PSF-F  
669aa

5  
1 msrdrfrsrg gggggfhrsg ggggrgglhd frspppgmgl nqnrpgmgs pgqsgpkppi  
61 ppppphqqqq qpppqpppq qppphqppph ppphqqqqpp pppqdsskp vaggpgpapg  
121 vgsappasss appatpptsq appsgsgpgt ptpppavtsa ppgappptpp ssgvpttppq  
181 agggppppaa vpgpgpgpkq gpgpgpgkkg kmpggpgkpg gpglstpggh pkpphrggge  
10 241 prggrqhphp yhqqhghgpp gggpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
301 vgnlpadite defkralfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpm qkeretpprf  
481 aqhtgfeyey sqrwksldem ekqreqvek nmkdakdkle semedayheh qanllrqdlm  
15 541 rrqeelrrme elhnqemqkr kemqlrquee rrrreeemmi rremeeqmr rreesysrm  
601 gymdprerdm rmggggamnm gdpysgggk fpplgggggi gyeangvpp atmsgsmms  
661 dmvrmdvg

## 20 SEQ ID NO. 4

AAH04534  
634 aa linear  
SFPQ protein [Homo sapiens].

25  
1 pqqppppqpp phqppphqp hqqqqppppp qdsskpvaq gpgpapgvs appasssapp  
61 atpptsqapp gsgpgtptp ppavtsappg appptppssg vpttppqagg pppppaavpg  
121 ppgpgkqpgg pggpggkmp gpgkpgggpg lstpgghpkp phrgggprg grqhghppyhq  
181 qhhqppppgg pgggrseekis dsegfkanls llrrpgeky tqrcrlfvgn lpaditedef  
30 241 krlfakygep gevfinkgkg fgfiklesra laeiakaeld dtpmrgrqlr vrfathaaal  
301 svrnlsyvs nelleeafsq fgpiervvi vddrgrstgk givefaskpa arkafercse  
361 gvfltttpr pvivepleql ddedglpekl aqknpmqke retpprfagh gtfeeyesqr  
421 wksldemekq reqveknmk dakdklesem edayhehqan llrqdlmrrg eelrrmeelh  
481 nqemqkrkem qlrqueerrr reemmirqr emeeqmrrqr eesysrmgym dprerdmrmg  
35 541 gggammgdp ysggqkfpp lgggggigye anpgvppatm sgsmmsdmr terfgggag  
601 pvggqprgm gpgtpagygr greeyegpnk kprf

## SEQ ID NO. 5

40  
AAH27708  
525 aa linear  
SFPQ protein [Homo sapiens].

45  
1 msrdrfrsrg gggggfhrsg ggggrgglhd frspppgmgl nqnrpgmgs pgqsgpkppi  
61 ppppphqqqq qpppqpppq qppphqppph ppphqqqqpp pppqdsskp vaggpgpapg  
121 vgsappasss appatpptsq appsgsgpgt ptpppavtsa ppgappptpp ssgvpttppq  
181 agggppppaa vpgpgpgpkq gpgpgpgkkg kmpggpgkpg gpglstpggh pkpphrggge  
241 prggrqhphp yhqqhghgpp gggpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
50 301 vgnlpadite defkralfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpm qkeretpprf  
481 aqhtgfeyey sqrwksldem ekqreqvek nmkdakdklk kkkkk

55

## SEQ ID. NO. 6

CAA34747

396 aa linear

5 DEFINITION myoblast antigen 24.1D5 [Homo sapiens].

1 efkrlfakyg epgevfindg kgfgfikles ralaaiakae lddtpmrgrq lrvrfathaa  
 61 alsvrnlspy vsnelleeeaf sqfgpierav vivddrgrst gkgivefask paarkaferc  
 121 segvfltttt prpviveple qlddedglpe klagknpmyq keretpprfa qhgtfeyeyes  
 10 181 qrwksldeme kqgrevekn mkdakdkles emedayehq anllrqdlmr rqeelrrmee  
 241 lhnqemqkrk emqlrqeer rrreemmir qremeeqmrr qreesysrmg ymdprerdmr  
 301 mggggammng dpygggqkf pplggggig yeapgvppa tmsgsmmsd mrterfgggg  
 361 agpvgggqpr gmppgtpagy grgreeyegp nkkprf

15

## SEQ ID NO. 7

NM\_005066

3071 bp mRNA linear

20 Homo sapiens splicing factor proline/glutamine rich (polypyrimidine  
 tract binding protein associated) (SFPQ), mRNA.

X70944 S56626

3071 bp mRNA linear

25 H.sapiens mRNA for PTB-associated splicing factor.

1 ccgccatttt gtgagaagca aggtggcctc cacgtttcct gagcgtcttc ttcgcttttg  
 61 cctcgaccgc cccttgacca cagacatgtc tcgggatcgg ttccggagtc gtggcggtgg  
 121 cggtggtggc ttccacaggc gtggaggagg cggcgccgcg gccggcctcc acgacttccg  
 30 181 ttctccgccc cccggcatgg gcctcaatca gaatcgccgc cccatgggtc ctggcccggg  
 241 ccagagcggc cctaagcctc cgatcccgc accgcctcca caccaacagc agcaacagcc  
 301 accaccgcag cagccaccgc cgcagcagcc gccaccgcac cagccgccgc cgcacccaca  
 361 gccgcacag cagcagcagc cgcgcgccacc gccgcaggac tcttccaagc ccgtcggttg  
 421 tcagggaccc ggccccgctc ccggagtagg cagcgcacca ccagcctcca gctcggcccc  
 35 481 gcccgccact ccaccaacct cggggggccc gccagggtcc gggccaggcc cgactccgac  
 541 cccgcccgtc gcagtcacct cggccccctc cggggcgccg ccacccaccc cgccaagcag  
 601 cggggtccct accacacctc ctcaggccgg agggccgcgc cctccgcccc cggcagtcct  
 661 gggcccggtt ccagggccta agcagggccc aggtccgggt ggtcccaaa ggcgcaaaat  
 721 gcctggcggg ccgaagccag gtggcgggcc gggcctaagt acgcctggcg gccaccccaa  
 40 781 gccgcccgtc cgaggcggcg gggagccccg cggggcgccg cagcaccacc gccctacca  
 841 ccagcagcat caccaggggc ccccgcccg cggggccggc ggccgcagcg aggagaagat  
 901 ctccgactcg gaggggttta aagccaattt gtctctcttg aggaggcctg gagagaaaac  
 961 ttacacacag cgatgtcggg tgtttgttgg gaatctacct gctgatatca cggaggatga  
 1021 attcaaaaga ctatttgcta aatatggaga accaggagaa gtttttatca acaaaggcaa  
 45 1081 aggattcgga tttattaagc ttgaatctag agctttggct gaaattgcca aagccgaact  
 1141 ggatgatata cccatgagag gtagacagct tcgagttcgc tttgccacac atgctgctgc  
 1201 ctttctgtt cgtaatcttt caccttatgt ttccaatgaa ctggtggaag aagcctttag  
 1261 ccaatttggt cctattgaaa gggctgttgt aatagtggat gatcgtgga gatctacagg  
 1321 gaaaggcatt gttgaatttg cttctaagcc agcagcaaga aaggcatttg aacgatgcag  
 50 1381 tgaagggtgt ttcttactga cgacaaactc tcgtccagtc attgtggaac cacttgaaca  
 1441 actagatgat gaagatgggtc ttcttgaaaa acttgcccag aagaatccaa tgtatcaaaa  
 1501 ggagagagaa acccctcctc gttttgccc gcatggcacg tttgagtacg aatatcttca  
 1561 gcgatggaag tctttggatg aaatggaaaa acagcaaagg gaacaagtgt aaaaaaacat  
 1621 gaaagatgca aaagacaaat tggaaagtga aatggaagat gcctatcatg aacatcaggc  
 55 1681 aaatcttttg cgccaagatc tgatgagacg acaggaagaa ttaagacgca tggagaact

1741 tcacaatcaaa gaaatgcaga aacgtaaaaga aatgcaattg aggcaagagg aggaacgacg  
 1801 tagaagagag gaagagatga tgattcgtca acgtgagatg gaagaacaaa tgaggcgcca  
 1861 aagagaggaa agttacagcc gaatgggcta catggatcca cgggaagag acatgcgaat  
 1921 ggggtggcgga ggagcaatga acatgggaga tccctatggt tcaggaggcc agaaatttcc  
 1981 acctctagga ggtggtggtg gcatagggtta tgaagctaatt cctggcggtt caccagcaac  
 2041 catgagtggg tccatgatgg gaagtgcacat gcgtactgag cgctttgggc agggaggtgc  
 2101 ggggcctgtg ggtggacagg gtcctagagg aatggggcct ggaactccag caggatatgg  
 2161 tagagggaga gaagagtacg aaggcccaaa caaaaaaccc cgattttaga tgtgatattt  
 2221 aggcctttcat tccagtttgt tttgtttttt tgtttagata ccaatctttt aaattccttg  
 2281 attttagtaa gaaagctatc tttttatgga tgtttagcagt ttattgacct aatatttgta  
 2341 aatgggtctgt ttgggcaggt aaaattatgt aatgcagtgt ttggaacagg agaatttttt  
 2401 tttccttttt atttctttat tttttctttt ttactgtata atgtccctca agtttatggc  
 2461 agtgtagcct gtgccactga atttccaaag tgtaccaatt tttttttttt tactgtgctt  
 2521 caaataaata gaaaaatagt tataatattg gatcttcaac tttgccattc atgcttctat  
 2581 gcatattagg ctacgtattc cacattgaaa gcatgagagt gtctaggcct ttgaatggca  
 2641 tatgccattt ctgggaaatg catctggagg ctaagtattg ctttctacaa ataattgccc  
 2701 cctttgtttt aaaaagaaga aatgcataatt gaagtatgtt gatgatttgt ttggcatata  
 2761 ggaagcacgc tgggtgctaag tatttttttaa atgggtatgt aagcaaagct gaactgtaaa  
 2821 tcttcaggaa tatgtattaa gattgtggaa tgggtgtaag acaattggta gggggtgaaa  
 2881 gtgggtttga ttaaattggat cttttatggc cctatgatct atcctttact tgaaagcttt  
 2941 tgaaaagtgg aaaggctcatt ttgttgcat tccccatttc ttgtttttta aagaccaaca  
 3001 aatctcaagc cctataaatg gcttgtattg aacttttaca tttgaattaa agatgttaaa  
 3061 catgaaaaaa a

SEQ ID NO. 8  
 BC051192  
 2622 bp mRNA linear  
 Homo sapiens splicing factor proline/glutamine rich (polypyrimidine tract  
 binding protein associated), mRNA (cDNA clone), complete cds.

1 tctgtgtcat ccgccatttt gtgagaagca aggtggcctc cacttttctt gagcgtcttc  
 61 ttgcgttttt cctcgaccgc ccttgacca cagacatgtc tcgggatcgg ttccggagtc  
 121 gtggcgggtg cggtggtggc ttccacaggc gtggaggagg cggcggccgc ggcgcctcc  
 181 acgacttccg ttctccgcgc cccggcatgg gcctcaatca gaactcgcgc ccatgggtc  
 241 ctggcccggg ccagagcggc cctaagcctc cgatcccgcc accgcctcca caccaacagc  
 301 agcaacagcc accaccgcag cagccaccgc cgcagcagcc gccaccgcat cagccgcgc  
 361 cgcattccaca gccgcattcag cagcagcagc cgcgcgccacc gccgcaggac tcttccaagc  
 421 ccgtcgttgc tcagggacct ggccccgctc ccggagtagg cagcacacca ccagcctcca  
 481 gctcggcccc gcccgccact ccaccaacct cggggggccc gccagggtcc gggccaggcc  
 541 cgactccgac cccgcgcctc gcagtcacct cggccctcc cggggcgccg ccaccaccc  
 601 cgccaagcag cgggggtccct accacacctc ctcaggccgg aggcgcgcgc cctccgcgc  
 661 cggcagtcct gggcccggtt ccaggcccta agcagggcc aggtcgggtt ggtcccaaag  
 721 cggcgaataa cctggcggtt ccgaagccag gtggcgcccc gggcctaagt acgcctggcg  
 781 gccaccccaa gccgcgcgt cgaggcggtc gggagccccg cggggggcgc cagcaccacc  
 841 cgccctacca ccagcagcat caccaggggc ccccgccccg cgggcccggc ggccgcagcg  
 901 aggagaagat ctcgactcg gaggggttta aagccaattt gtctctcttg aggaggcctg  
 961 gagagaaaac ttacacacag cgatgtcggt tgtttgttgg gaatctacct gctgatatca  
 1021 cggaggatga attcaaaaga ctatttgcta aatatggaga accaggagaa gtttttatca  
 1081 acaaaggcaa aggattcgga tttattaagc ttgaatctag agctttggct gaaattgcc  
 1141 agccgaact ggatgataca ccatgagag gtagacagct tcgagttcgc tttgccacac  
 1201 atgctgctgc ctttctgtt cgtaatcttt cacttatgt ttccaatgaa ctggtggaag  
 1261 aagcctttag ccaatttggt cctattgaaa gggctgttgt aatagtggat gatcgtgga  
 1321 gatctacagg gaaaggcatt gttgaatttg cttctaagcc agcagcaaga aaggcatttg

```

1381 aacgatgcag tgaaggtgtt ttcttactga cgacaactcc tegtccagtc atttgtggaac
1441 cacttgaaca actagatgat gaagatggtc ttcttgaaaa acttgcccag aagaatccaa
1501 tgtatcaaaa ggagagagaa acccctactc gttttgcccc gcatggcacg tttgagtacg
1561 aatatttctca gcgatggaag tctttggatg aaatggaaaa acagcaaagg gaacaagttg
5 1621 aaaaaaacat gaaagatgca aaagacaaat tggaaagtga aatggaagat gcctatcatg
1681 aacatcaggc aaatcttttg cgccaagatc tgatgagacg acaggaagaa ttaagacgca
1741 tggaagaact tcacaatcaa gaaatgcaga aacgtaaaga aatgcaattg aggcaagagg
1801 aggaacgacg tagaagagag gaagagatga tgattcgtca acgtgagatg gaagacccaa
1861 tgaggcgcca aagagaggaa agttacagcc gaatgggcta catggatcca cgggaaagag
10 1921 acatgcgaat ggggtggcga ggagcaatga acatgggaga tccctatggg tcaggaggcc
1981 agaaatttcc acctctagga ggtgggtgtg gcataggtta tgaagctaac cctggcggtc
2041 caccagcaac catgagtggg tccatgatgg gaagtgcacat gcgtactgag cgctttgggc
2101 agggaggtgc ggggcctgtg ggtggacagg gtccatagagg aatggggcct ggaactccag
2161 caggatatgg tagagggaga gaagagtacg aaggcccaaa caaaaaaccc cgattttaga
15 2221 tgtgatattt aggctttcat tccagtttgt tttgtttttt tgtttagata ccaatctttt
2281 aaattcttgc attttagtaa gaaagctatc tttttatgga tgttagcagt ttattgacct
2341 aatatttgta aatggctctgt ttgggcagggt aaaattatgt aatgcagtgt ttggaacagg
2401 agaatttttt tttccttttt atttcttttt tttttctttt ttactgtata atgtccctca
2461 agttttatggc agtgtacctt gtgccactga atttccaaag tgtaccaatt tttttttttt
20 2521 tactgtgctt caaataaata gaaaaaatag tataaaaaaa aaaaaaaaaa aaaaaaaaaa
2581 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa

```

## SEQ ID NO. 9

25

X16850

2021 bp mRNA linear

Human mRNA for myoblast cell surface antigen 24.1D5.

```

30 1 gaattcaaaa gactatttgc taaatatgga gaaccaggag aagtttttat caacaaaggc
61 aaaggattcg gatttattaa gcttgaatct agagcttttg ctgaaattgc caaagccgaa
121 ctggatgata caccatgag aggtagacag cttcgagtgc gctttgccac acatgctgct
181 gccctttctg ttcgtaatct ttcaccttat gtttccaatg aactggttga agaagccttt
241 agccaatttg gtcctattga aagggctgtt gtaatagtgg atgatcgtgg aagatctaca
35 301 gggaaaggca ttgttgaatt tgcttctaag ccagcagcaa gaaaggcatt tgaacgatgc
361 agtgaagggtg ttttcttact gacgacaact cctcgtccag tcattgttga accacttgaa
421 caactagatg atgaagatgg tcttcctgaa aaacttgccc agaagaatcc aatgtatcaa
481 aaggagagag aaaccctccc tegtgttgcc cagcatggca cgtttgagta cgaatattct
541 cagcgatgga agtctttgga tgaaatggaa aaacagcaaa gggaacaagt tgaaaaaaac
40 601 atgaaagatg caaaagacaa attggaaagt gaaatggaag atgcctatca tgaacatcag
661 gcaaatcttt tgcgccaaga tctgatgaga cgacaggaag aattaagacg catggaagaa
721 cttcacaaatc aagaaatgca gaaacgtaaa gaaatgcaat tgaggcaaga ggaggaaacga
781 cgtagaagag aggaagagat gatgattcgt caacgtgaga tggagaacaa aatgaggcgc
841 caaagagagg aaagttacag ccgaatgggc tacatggatc cacgggaaag agacatgcga
45 901 atgggtggcg gaggagcaat gaacatggga gatccctatg gttcaggagg ccagaaattt
961 ccacctctag gaggtggtgg tggcataggt tatgaagcta atcctggcgt tccaccagca
1021 accatgagtg gttccatgat ggggaagtgc atgcgtactg agcgctttgg gcagggaggt
1081 gcggggcctg tgggtggaca gggctcctaga ggaatggggc ctggaactcc agcaggatat
1141 ggtagagggg gagaagagta cgaaggccca acaaaaaaac cccgatttta gatgtgatat
50 1201 ttaggcctttc attccagttt gttttgtttt tttgttttaga taccaatctt ttaaattctt
1261 gcatttttagt aagaaagcta tctttttatg gatgttagca gtttattgac ctaatatttg
1321 taaatgggtct gtttgggcag gtaaaattat gtaatgcagt gtttggaaca ggagaatttt
1381 ttttcctttt tatttcttta tttttctttt tttactgtat aatgtccctc aagtttatgg
1441 cagtgtacct tgtgccactg aatttccaaa gtgtaccaat tttttttttt ttactgtgct
55 1501 tcaataaat agaaaaatag ttataatatt gatcttcaac tttgccattc atgcttctat

```

1561 gcatattagg ctacgtattc cacattgaaa gcatgagagt gtctaggcct ttgaatggca  
 1621 tatgccattt ctgggaaatg catctggagg ctaagtattg ctttctacaa ataattgccc  
 1681 cctttgtttt aaaaagaaga aatgcatatt gaagtagttt gatgatttgt ttggcatata  
 1741 ggaagcacgc tgggtgctaag tatttttttaa atggttatgt aagcaaagct gaactgtaaa  
 5 1801 tcttcaggaa tatgtattaa gattgtggaa tgggtgtaag acaattggta gggggtgaaa  
 1861 gtgggtttga ttaaatggat cttttatggc cctatgatct atcctttact tgaaagcttt  
 1921 tgaaaagtgg aaaggtcatt ttgttgcat tccccatttc ttgtttttta aagaccaaca  
 1981 aatctcaagc cctataaatg gcttgtattg aaccogaatt c

10

SEQ ID NO. 10

NP\_000917

933 aa linear

15 progesterone receptor [Homo sapiens]

AAS00096

933 aa linear

progesterone receptor [Homo sapiens]

20

AAD01587

933 aa linear

progesterone receptor [Homo sapiens]

25

AAA60081

933 aa linear

progesterone receptor Homo sapiens

P06401

30 933 aa linear

Progesterone receptor (PR).

1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisldgllf  
 61 prpcqgqdpd dektqdqgsl sdvegaysra eatrgaggss ssppekds gl lds vldtlla  
 35 121 psgpggsqps ppacevtssw clfgpelped ppaapatqrv lsplm srs gc vgdssgtaa  
 181 ahkvlpgrls parqlllpas esphwsgapv kpspgaaave veeedssese esagp1lkkgk  
 241 pralggaaaag ggaaacppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv  
 301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pp rtspcass t p vavgd f p d  
 361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d f p l g  
 40 421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfapppc  
 481 kapgasgc1l prdglpsta saaaagaapa lypalglngl pqlgyqaavl keglpqvypp  
 541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgscckvf fkramegqhn  
 601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggrkfk kfnkvrvvra ldavalpqp1  
 661 gvpnesqals qrftf spgqd iqlipplnl lmsiepdviy aghdntkpd t s s l l t s l n q  
 45 721 lgerqlslsvv kwskslp gfr nlhiddqitl iqyswmslmv fglgwr sykh vsgqmlyfap  
 781 dlilneqrmk essfyslclt mwqipqefvk lqvsqeeflc mkvllllnti pleglrsqtq  
 841 feemr ssyir elikaiglrq kgv vsssqrf yqltklldnl hdlvkqlhly clntf i q s r a  
 901 lsvefpemms eviaaqlpki lagmvkpllf hkk

50

SEQ ID NO. 11

BAB91074

831 aa linear

55 delta 4 progesterone receptor [Homo sapiens]

```

      1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisldgllf
      61 prpcqgqdps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl lds vldtlla
    121 psgpgqsqps ppacvtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
  5   181 ahkvlpgrls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkkgk
      241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
      301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass tpvavgd fdp
      361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
      421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfappppc
  10   481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp
      541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgskv f kramegqhn
      601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggfrnl hiddqitliq yswmslmvfg
      661 lgwrsykhvs gqmlyfapdl ilneqrmkes sfyslcltmw qipqefvklq vsqeeflcmk
      721 vl lllntipl eglrsqtqfe emrssyirel ikaiglrqkg vvsssqr f y ltkl ldn lhd
  15   781 lvkqlhlycl ntfigsrals vefpemmsev iaaqlpkila gmvkpllfhk k

```

## SEQ ID NO. 12

BAC06585

20 695 aa linear  
Progesterone receptor [Homo sapiens]

```

      1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisldgllf
      61 prpcqgqdps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl lds vldtlla
    25 121 psgpgqsqps ppacvtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
      181 ahkvlpgrls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkkgk
      241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
      301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass tpvavgd fdp
      361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
    30 421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfappppc
      481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp
      541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgskv f kramegqhn
      601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggfrnl hiddqitliq yswmslmvfg
      661 lgwrsykhvs gqmlyfapdl ilnds fgrat ksnpv
  35

```

## SEQ ID NO. 13

BAC11011

40 764 aa linear  
delta 3+6/2 progesterone receptor [Homo sapiens].

```

      1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisldgllf
      61 prpcqgqdps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl lds vldtlla
    45 121 psgpgqsqps ppacvtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
      181 ahkvlpgrls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkkgk
      241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
      301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass tpvavgd fdp
      361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
    50 421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfappppc
      481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp
      541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgskv f kramegrkf
      601 kkfnkvrivr aldavalpqp vgvpn esqal s q r f t f s p g q d i q l i p p l i n l l m s i e p d v i
      661 yaghdntkpd tsssltsln qlgerqllsv vkwskslpgf rnlhiddqit liqyswmslm
  55 721 vfglgwrsyk hvsgqmlyfa pdlilneshr slssfklakk sssv

```

## SEQ ID NO.14

5 BAC11012  
690 aa linear  
delta4+6/2 progesterone receptor [Homo sapiens]

```

1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisl dgllf
10 61 prpcqgqgps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl lds vldtlla
121 psgpgqsqps ppacevtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
181 ahkvlpgrls parqlllpas esphwsgapv kpspqaaave veeedgsese esagp11kgk
241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass t p vav gdfpd
15 361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfappppc
481 kapgasgcll prdglpsta saaaagaapa lypalglngl pqlgyqaavl keglpqvyppp
541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgskvfk fkramegqhn
601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggfrnl hiddqitliq yswmslmvfg
20 661 lgwrsykhvs gqmlyfapdl ilneqsivts

```

## SEQ ID NO.15

25 BAC11013  
803 aa linear  
delta 6/2 progesterone receptor [Homo sapiens].

```

1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisl dgllf
30 61 prpcqgqgps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl lds vldtlla
121 psgpgqsqps ppacevtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
181 ahkvlpgrls parqlllpas esphwsgapv kpspqaaave veeedgsese esagp11kgk
241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass t p vav gdfpd
35 361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfappppc
481 kapgasgcll prdglpsta saaaagaapa lypalglngl pqlgyqaavl keglpqvyppp
541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgskvfk fkramegqhn
601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggrkfk kfknkvrvvra ldavalpqp v
40 661 gvpnesqals qrftf spgqd iqlipplnl lmsiepdviy aghdntk p d t s s s l l t s l n q
721 lgerqllsvv kwskslp gfr nlhiddqitl iqyswmslmv fglgwrsykh vsgqmlyfap
781 dlilneshrs lssfklakks ssv

```

## 45 SEQ ID NO. 16

FGQGGAGPVGQGQP

## 50 SEQ ID NO.17

CTGAGTC

## 55 SEQ ID NO. 18



YGEPGEVFINKGK

5 SEQ ID NO. 19

GIVEFASKPAAR

10 SEQ ID NO. 20

FAQHGTTEEYEYSQR

15 SEQ ID NO. 21

NP\_076092 (Murine PSF)

1 msrdrfrsrg gggggfhrng ggggrgglhd frspppgmg1 nqnrpgmjpg pggpkpplpp  
20 61 ppphqqqqqp ppqqppppqp pphqqppphq pphqqppppp qeskpvpvpg pgsapgvssa  
121 ppavapsappa nppttgappg pgptptpppa vpstapggpp pstpssgvst tppqtggppp  
181 ppaggagppg kpgpgpggpk ggkmpgggkp gggpgmgapg ghpkpphrng geprggrqhh  
241 apyhqqhhqg pppggpgprt eekisdsefg kanlsllrrp gektytqrer lfvgnlpadi  
301 tedefkrlfa kygepgevfi nkgkgfgfik lesralaeia kaelddtpmr grqlrvrfat  
25 361 haaalsvrnl spyvsnelle eafsqfgpie ravvivddrg rstgkgivef askpaarkaf  
421 ercsegvfl1 tttprpvive pleqlddedg lpeklaqkn myqkeretpp rfaqhgtfey  
481 eysqrwksld emekqgreqv eknmkdakdk lesemedayh ehqanllrqd lmrrqeelrr  
541 meelhsqemq krkemqlrge eerrrrreem mirqremeeq mrrqreesys rmgyndprer  
601 dmrmggggtm nmgdpygsgg qkfpplgggg gigyeapgv ppatmsgsmm gsdmrterfg  
30 661 qggagpvggg gprgmpgtp agygrgreey egpnkkprf

SEQ ID NO. 22

35 VRMIDVG